



# ***Unix Fundamentals***

From beginner to (hopefully) somewhat functional

October 2023





# ***Unix Fundamentals – Chapter 1***

Learn how to ask for help

- Intro
- Google It
- Stack Overflow
- h Flags
- Info
- man
- whatis

A warning to work in an industry where RTFM is still predominant

In an industry where many companies inadvertently embrace or blatantly **deny** the RTFM (read-the-freaking-manual) approach, the ability to seek assistance and understand how to navigate documentation becomes a valuable and transferable skill.

Knowledge is at the tip of our hands, we have 1000's of blogs, yt channels, stack overflow, ChatGPT and yet this does not necessarily equate to the ability of understand, analyze or effectively use information.

The following slides offer generic steps on seeking assistance while using Linux.

## Challenges: information != Correct Information

- **Information overflow:** excess of resources, inability to discern quality information sources.
- **Critical thinking:** Not all individuals have developed analytical thinking.
- **Skill gap:** Not everybody is confident or skilled enough to navigate digital resources.
- **Time constraints:** managers and above have limited time and might rely on subordinates to get information without double checking it.
- **Fear:** of being wrong. Some companies or individuals will not foster an environment where you are allowed to fail.

## Googling

- Formally called “Search Engine Literacy”
- Underestimated and transferable skill



how to find null values in sybase sql attribute fie X



## Tips to generate an effective query

1. Define your objective.
2. Start with Basic Keywords, then escalate.
3. Be specific.
4. Use quotation marks.
5. Check Spelling and grammar.
6. Scan the snippets.
7. Advanced search operators.



Stack Overflow

<https://stackoverflow.com> › sybas... ⋮

### Sybase SQL not in & null

14 ene 2021 — A **column** BB has **values** null,1,2,3 and 4. I wrote **SQL** as below: **select** BB from table\_s where BB not in ('1','2'). But I only got result in '3 ...

1 respuesta · Mejor respuesta: This is standard SQL. Almost any comparison with NULL return...

IsNull in **sybase** where clause - Stack Overflow 5 jul 2013  
**Sybase** and **null** string in **select**. Weird processing 1 dic 2016  
filter for **null value** not working for DB2 and **Sybase** 24 feb 2014  
Not able to update **column** which was set as **null** using '**select** ... 20 ene 2022  
[Más resultados de stackoverflow.com](#)



SAP

<https://userapps.support.sap.com> › support › knowledge ⋮

### 3236844 - Bit datatype and treatment of NULL - SAP IQ

- SAP **SQL** Anywhere and SAP IQ assume that **columns** can be **null** unless NOT NULL is stated in the **column** definition. You can change this behavior by setting the ...



Chartio

<https://chartio.com> › tutorials › ho... ⋮

### How to SELECT Records With No NULL Values in MySQL

By far the simplest and most straightforward method for ensuring a particular **column's** result set doesn't contain **NULL values** is to use the IS NOT NULL ...

# StackOverflow

- Saving devs since 2008.
- Even if a question is too old it can provide valuable insights.
- Excellent Quality control: Peer review system.
- Dynamic community.
- Stack Exchange Network. Diverse topics ordered like SO.
- Enterprise Integration.
- Review rules before posting.

<https://stackoverflow.com/>

Use the `raw-unicode-escape` codec to encode the string as bytes, then you can decode as UTF-8.



Learn to ask for help – h flags

## -h and --help flags

Reminder of how to use a command.

Help or h flag are not \*nix standard, some commands will respond, some not.

Prints to stdout:

Description

Syntax

Options

Syntax

<command> -h or <command> --help

grep --help

```
kone@Mercury:~$ grep --help
Usage: grep [OPTION]... PATTERNS [FILE]...
Search for PATTERNS in each FILE.
Example: grep -i 'hello world' menu.h main.c
PATTERNS can contain multiple patterns separated by newlines.

Pattern selection and interpretation:
-E, --extended-regexp    PATTERNS are extended regular expressions
-F, --fixed-strings      PATTERNS are strings
-G, --basic-regexp       PATTERNS are basic regular expressions
-P, --perl-regexp        PATTERNS are Perl regular expressions
-e, --regexp=PATTERNS    use PATTERNS for matching
-f, --file=FILE          take PATTERNS from FILE
-i, --ignore-case         ignore case distinctions in patterns and data
                        --no-ignore-case    do not ignore case distinctions (default)
-w, --word-regexp        match only whole words
-x, --line-regexp        match only whole lines
-z, --null-data          a data line ends in 0 byte, not newline
```

## Info

```
Next: Introduction, Up: (dir)

grep
****

'grep' prints lines that contain a match for one or more patterns.

This manual is for version 3.7 of GNU Grep.

This manual is for 'grep', a pattern matching engine.

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* Menu:

* Introduction::      Introduction.
* Invoking::          Command-line options, environment, exit status.
* Regular Expressions:: Regular Expressions.
* Usage::             Examples.
* Performance::      Performance tuning.
* Reporting Bugs::    Reporting Bugs.
* Copying::           License terms for this manual.
* Index::             Combined index.
```

- Not \*nix standard, not all commands will have info command available.
- Features hyperlinking.
- If you type info, you will go to a general Unix command node page.

## Syntax

info <command> - info grep



# Unix Fundamentals

Learn to ask for help – man

man

Manual pages are a reference, not a tutorial.

Typically divided into numbered sections.

Navigation is similar to less.

Provides command descriptions, usage, options, and examples.

Syntax

man <command> - man grep

```
GREP(1)

NAME
    grep, egrep, fgrep, rgrep - print lines that match pat

SYNOPSIS
    grep [OPTION...] PATTERNS [FILE...]
    grep [OPTION...] -e PATTERNS ... [FILE...]
    grep [OPTION...] -f PATTERN_FILE ... [FILE...]

DESCRIPTION
    grep searches for PATTERNS in each FILE. PATTERNS
    each line that matches a pattern. Typically PATTERNS

    A FILE of "-" stands for standard input. If no FILE
    nonrecursive searches read standard input.

    In addition, the variant programs egrep, fgrep and
    variants are deprecated, but are provided for backward

OPTIONS
    Generic Program Information
        --help Output a usage message and exit.

        -V, --version
            Output the version number of grep and exit.

    Pattern Syntax
        -E, --extended-regexp
            Interpret PATTERNS as extended regular expressi

        -F, --fixed-strings
            Interpret PATTERNS as fixed strings, not regula

Manual page grep(1) line 1 (press h for help or q to quit)
```

Learn to ask for help – whatis

## whatis

```
~$ whatis grep
grep (1) - print lines that match patterns
```

Displays one line descriptions from man pages.

Quickly identifies purpose of a command.

## Syntax

`whatis <command> - whatis grep`

```
ko gM :~$ which grep
/usr/bin/grep
```

## which

Determines the location of a command's binary.

Relies on system's \$PATH variable for its search.

## Syntax

`which <command> - which grep`